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ABSTRACT

Novice school administrators find that demands for excellence have grown while budgets have shrunk. This paper reports on a study that examined the stress levels of beginning administrators. Two of the key questions for the study--Is the stress experienced by new school administrators manageable or out of control? and Does the job put beginning school administrators at risk?--were answered by determining if new administrators experience measurable changes in blood pressure. For the research, 43 beginning school administrators (25 females, 32 Caucasians, 9 African-Americans, 2 Hispanics) were monitored over a 3-year period. Sixteen of the administrators were principals, 14 were assistant principals, and 13 were based at the central office. The study was conducted in a large Midwestern megalopolis. Results based on measurements of systolic and diastolic blood pressure indicate a significant main effect for systolic pressure and ethnicity. The average mean systolic pressure score for African-Americans exhibited a dramatic increase. There were no significant differences for systolic pressure between genders. An analysis of change in diastolic pressure yielded a significant main effect: all beginning administrators, both building-based and those in the central office, demonstrated a significant increase in diastolic pressure, suggesting that all novices were vulnerable. Contains 22 references. (RJM)

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Novice Administrators:Psychological and Physiological Effects

Linda J. Schmidt, Georgia J. Kosmoski and Dennis R. Pollack

Traditionally, school administration has been viewed as a stressful; yet manageable, profession. Experts encouraged school administrators to remain alert to body warnings, and to keep the stress level in check and manageable (Kahn, 1973; Kaiser, 1993). However, in the last ten years, beginning school administrators found that the position had changed. Numerous fundamental changes caused an increase in the duties school administrators were expected to perform. Among these were the decrease in available resources and organizational belief and style change.

Today, novice school administrators find that they are expected to achieve excellence with fewer resources (Sacken, 1994). "One need not search long to find evidence of shrinking educational funding... yet (school administrators) are expected to get more done with less." (Kosmoski, 1997, p.26). Because of less funding, the work force has been reduced and school administrators find that their own work load has increased.

New school administrators find that their organization has been, or is in the process of being, restructured from a historically bureaucratic institution to one that endorses and embraces democratic beliefs. Neophytes are expected to encourage and promote shared decision-making, a collegial environment, and teacher empowerment. Each, when implementeed, requires the school administrator to successfully perform numerous leadership activities (Bray, Campbell, and Grant, 1974; Clinchy, 1995; Goodlad, 1984 ; Kosmoski, 1997; Oliva, 1993; Sergiovanni and Starratt, 1988)

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. These practices add additional duties and responsibilities for the beginning school administrator. Today's school leaders have assumed more responsibilities and are required to preform more duties than their predecessors. Novice school administrators find that their work load has increased in the 1990s.

Marcson (1970), Sheppard (1971), and French and Caplan (1973) directly linked work overload with debilitating stress. They demonstrated that debilitating stress is a recognized indicator and precursor to serious physical and mental health illnesses. Physical illnesses included hypertension, myocardial infarction, congestive heart failure, and stroke. Findings from several studies provide support for the notion that occupational stress contributes to cardiovascular disease morbidity and mortality (Alfredsson, Speta, & Theorell, 1985; Alterman, Shekelle, Vernon, & Burau, 1994; Pieper, La-Croix, & Karasek, 1989). These conditions combine to account for more than 50% of mortalities in the United States (Wollam & Hall, 1988) and are the leading cause of death among men and women in most industrialized countries (Thom & Epstein, 1994).

Is stress experienced by new school administrators manageable or out of control? Does the job put beginning school administrators at risk? Are school administrators of the 1990s experiencing debilitating stress? Are they flirting with premature death? Practical wisdom suggests that these questions should be answered affirmatively. However, knowledge based upon measurable statistical information is necessary to draw any meaningful conclusions regarding these concerns. To answer these questions, this study was conducted to determine if beginning administrators experience measurable and potentially detrimental changes in blood pressure.

METHOD

Subjects This was a three year study of 43 beginning school administrators. Beginning school administrators were defined as those individuals who were assuming a new position as a school administrator, i.e. a first year novice at a given position. Thirty beginning school administrators were building-based and 13 central office based. Sixteen subjects assumed the position of principal, 14 became assistant principals, and 13 began jobs at the central office. No superintendent of schools participated in this study. Twenty-five subjects were female. Thirty-two subjects were Caucasian, 9 African American, and 2 Hispanic. Twenty-three participated in a year-long mentoring program (Group 1/ Experimental) while 20 did not participate (Group 2/ Control). Subjects in the experimental group were matched by gender, ethnicity, position assumed, and school socio-economic status and location to control subjects. This allowed for a matched pair design.

This study was conducted in a large Midwestern megalopolis. Twelve subjects assumed administrative positions in the city, 28 novices were employed in the surrounding suburbs, and 3 began work in rural districts within forty miles of the city. The districts that employed these school administrators represented all socio-economic levels with greatest representation at the middle and lower middle class level.

Procedure To examine physical changes, all subjects annually reported their late afternoon systolic and diastolic blood pressure and the use or non-use of blood pressure/hypertension medication. Initial readings were compared to final readings. All initial blood pressure reports occurred within two months after the novices assumed the new administrative position. No beginning administrators used blood pressure/hypertension medication at the commencement of this study.

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With the exception of three subjects, the final blood pressure scores were recorded after the beginning administrators had served three full years in the position. The three exceptional subjects began taking hypertension medication during their third year on the job. Their final readings, used in this study, were the last reported pressure readings prior to use of medication.

Hypotheses. Three hypotheses were tested.

- There would be significant changes in the mean scores of systolic blood pressure between the initial and final blood pressure readings for all groups.
- There would be significant changes in the mean scores of diastolic blood pressure between the initial and final blood pressure readings for all groups.
- The variables of gender, ethnicity, and type of position would affect systolic and diastolic mean scores.

ANALYSES OF DATA

Data were analyzed using the statistical software package, *Statistical Package of Social Studies 6.1 for Windows* (SPSS). A 2x2 analysis of variance was utilized in a pre/post experimental design. Post hoc analysis included a comparison of means, single anovas, multiple analysis of variance. Varables examined included experience, group, gender, ethnicity, and type of position assumed. This procedure was selected after consulting Kerlinger (1986), Smith (1985), and Vockell and Asher(1995).

RESULTS

Physiological changes, as measured by systolic and diastolic blood pressure for beginning administrators, were examined. The analyses of change in systolic pressure found a significant main

effect for systolic pressure and ethnicity with a significant interaction. Although the average mean systolic pressure for other ethnicities remained virtually constant, increasing 1.66 for Time 2; the average mean systolic pressure score for African Americans (Time 1 was 132.75 and Time 2 was 147.00.) demonstrated a dramatic increase of 14.25 for Time 2. There were no significant differences for systolic pressure between genders. However, when the systolic pressure of African American males was specifically examined, a significant main effect and a significant interaction was identified. For African American males systolic pressure mean scores increased 17.60. (Time 1 was 133.60 and Time 2 was 151.20). All other systolic pressure means remained virtually constant with a slight increase of 2.26. No significance was found for systolic pressure and the type of position held.

An analyses of change in diastolic pressure yielded a significant main effect for all subjects. Regardless of group, all beginning administrators demonstrated a significant (<.001) increase in diastolic pressure from Time 1 to Time 2. A main effect was found for diastolic pressure and type of position. The mean diastolic pressure for both building-based and central office administrators increased significantly (<.001) with a change in mean of 21.27 and 13.00, respectively. There was a main effect and a significant interaction for diastolic pressure and ethnicity. All ethnicities experienced significant (<.001) diastolic pressure increase. African Americans demonstrated the greatest increase in diastolic pressure from Time 1 to Time 2. African American diastolic pressure increased 33.38, while other ethnicities increased 14.62. A significant main effect (<.001) and a significant interaction (<.01) were found for diastolic pressure and African American males. The diastolic pressure for African American males increased 47.40 points compared to all others which increased 14.23 points.

These results indicated that beginning administrators, regardless of gender or type of position

had a significant rise in diastolic blood pressure during this three year time period. Higher systolic and diastolic pressure were tied to ethnicity with African Americans more effected than other ethnic groups. Those most vulnerable to high blood pressure were African American males. The results for systolic and diastolic pressure are found in Table 1 and 2.

TABLE 1
COMPARISON OF MEANS FOR SIGNIFICANT BLOOD PRESSURE FACTORS

Variable	Mean 1	Mean 2
Systolic x Ethnicity Other African American	125.28 132.75	126.94 147.00
Systolic x AA Males All Others African American Males	125.80 133.60	128.06 151.20
Diastolic Main Effect for Beginning Administrators Group 1 Group 2	76.95 79.45	83.75 109.40
Diastolic x Position Building Based Central Office	78.15 78.29	99.42 91.29
Diastolic x Ethnicity Other African American	78.13 78.50	92.75 111.88
Diastolic x African American Males Other AAMales	78.00 79.60	92.23 127.00

TABLE 2
ANALYSIS OF VARIANCE FOR SIGNIFICANT BLOOD PRESSURE VARIABLES

Source of Variation	SS	DF	MS	F	Sig of F
Within+Residual Systolic Ethnic. x Systolic	3041.36 809.63 507.53	38 1 1	80.04 809.63 507.53	10.12 6.34	.003 .016
Within + Residual Systolic AA Males x Systolic	3033.94 862.54 514.94	38 1 1	79.84 862.54 514.94	10.80 6.45	.002 .015

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Within+Residual	7549.07	38	198.66		
Diastolic	6752.81	1	33.99	33.99	.000
Group x Diastolic	2679.61	1	2679.61	13.49	.001
Within+Residual	9917.56	38	260.99		
Diastolic	5343.43	1	5343.43	20.47	.000
Position x Diastolic	311.13	1	311.13	1.19	.282
Within+Residual	9103.69	38	239.57		
Diastolic	7372.80	1	30.78	30.78	.000
Ethnic. x Diastol	1125.00	1	1125.00	4.70	.037
Within+Residual	7821.69	38	505.83		
Diastolic	8308.30	1	8308.30	40.36	.000
AAMale x Diastol	2407.00	1	2407.00	11.69	.002

DISCUSSION

This study demonstrated that beginning administrators experience negative physical effects during the first three years in a new position. Their blood pressure increased significantly. Since blood pressure scores (in particular, diastolic) are an accepted indicator of hypertension and stress, heart attack, kidney disease, and stroke, educators must be aware of this phenomenon and address the school administrator's needs (Kaiser, 1993).

Contrary to the findings of Weidner, Boughal, Connor, Pieper, and Mendell (1997), which found that women employed in stress-related occupations did not demonstrate a significant and adverse rise in blood pressure, this study demonstrated that both women and men experienced significant rises in blood pressure. Regardless of gender, beginning school administrators must be considered physically at risk.

Elevated diastolic pressure was found for both building-based and central office beginning administrators. These findings suggested that all novices, regardless of location were vulnerable. Too often, the central office administrator was ignored or forgotten by educational administration experts.

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They were often excluded from corrective programs. These results confirm that the central office administrators, along with those building-based, must be considered when proactive or therapeutic practices are instituted.

African Americans compared to other ethnicities experienced the most significant increase in both the systolic and diastolic pressure. They were more affected than all other ethnicities. This is in keeping with the national statistics that demonstrate that high blood pressure is twice as common among Afican Americans than other ethnic groups (Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure, 1993). Compared to all others, African American males demonstrated the greatest rise in blood pressure. These results clearly demonstrated the special concerns and vulnerability of African Americans and particularly African American males. Consideration for these facts must be given when determining future corrective measures.

Seven suggested actions to combat these debilitating effects for beginning administrators are offered. Some require immediate initiation while others need long range and sweeping changes to implement. They are:

- Beginning school administrators, regardless of gender, ethnicity, or position held, must be informed of their potential vulnerability, and they should be encouraged to take immediate proactive steps to insure their good health. Some appropriate actions for beginning administrators include regular physical checkups, and frequent and regular (at least weekly) monitoring of blood pressure.
- School districts, knowing the potential physical danger that beginning school administrators confront, have a moral and professional obligation to become

proactive. They need to provide these neophytes with some form of a formalized employee assistance program. Minimal components of such programs should include access to health club facilities, counseling and psychological services, and health support services.

- Universities, state certification programs, and professional organizations should establish intensified and ongoing programs which provide information and training sessions on stress-reduction techniques and practices for aspiring and beginning school administrators. Stress reduction practices during the working day should be emphasized.
- Educators and health professionals, working together, need to address the problem of increased blood pressure and provide health, exercise, and dietary planning assistance for all novices (Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure, 1993).
- Educational experts must be recognized and addressed the special needs of African American, particularly male, beginning school administrators.
- Educators, in particular staff development specialists, must recognize that central office novices have the same vulnerability and personal and professional needs as administrators located in the schools. All suggestions listed above should be made available and/or followed by this often forgotten or ignored group.
- Educators must rethink, redefine, and reduce the requirements and duties of the school administrator. Done well so as to eliminate overload, this process should make

the job manageable, and therefore, less stressful and detrimental for all school administrators.

Although this study has limitations of size, location, and duration, it does suggest a number of major educational implications and does merit serious consideration. It is strongly suggested and highly recommended that this research study be repeated with a larger and more geographically diverse pool of beginning school administrators to verify or refute these findings. A longitudinal study should be conducted for all practicing school administrators If, as this study indicated, our beginning administrators are flirting with a premature death; then we need to face this problem head on, implement corrective measures, and stem this life-threatening trend.

REFERENCES

Alfredsson, L., Speta, C., & Theorell, Y. (1985). Types of occupational and near-future hospitalization for myocarial infarction and some other diagnoses. *International Journal of Epidemiology*, 14, 378-388.

Alterman, T., Shekelle, R. B., Vernon, S. W., & Burau, K. D. (1994). Decision latitude, psychologic demand, job strain, and coronary heart disease in the Western Electric Study. *American Journal of Epidemiology*, 139, 620-627.

Clinchy, E. (1995). Learning about the real world: Recontextualizing public schools. *Phi Delta Kappan*, 75(5), 400-404.

French, J. R. P., & Caplan, R. (1973). Organizational stress and individual strain. In A. J. Marrow (Ed.) *The failure of success*. New York: Amacon.

Goodlad, J. I. (1984). *A place called school: Prospects for the future*. New York: McGraw-Hill.

Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure (JNC-V). (1993). Fifth Report. *Archives of Internal Medicine*, 153, 154-183.

Kahn, R. (1973). Conflict, ambiguity, and overload: three elements in job stress. *Occupational*

Mental Health, 3, 87-94.

Kaiser, J. (1993). *Educational administration* (2nd ed.). Mequone, WI: Stylex Publishing Co., Inc.

Kerlinger, F. N. (1986). *Foundations of behavioral research* (3rd ed.). New York: Holt, Rinehart and Winston.

Kosmoski, G. J. (1997). *Supervision.* Mequone, WI: Stylex Publishing Co., Inc.

Marcson, S. (1970). *Automation, alienation, and anomie*. New York: Harper and Row.

Oliva, P. F. (1993). *Supervision for today's schools* (2nd. Ed.). New York: Longman.

Pieper, C., La-Croix, A. Z., & Karasek, R. A. (1989). The relationship of psychosocial dimensions of work with coronary heart disease risk factors: A meta-analysis of five united States data bases. *American Journal of Epidemiology*, 129, 483-494.

Sacken, D. (1994). No more principals! *Phi Delta Kappan*, 75, 664-670.

Sergiovanni, T. J., & Starratt, R. J. (1988). *Supervision: Human perspectives* (4th ed.). New York: McGraw Hill.

Sheppard, J. (1971). *Automation and alienation*. Cambridge, MA: MIT Press.

Smith, G. (1985). *Statistical reasoning*. Boston: Allyn and Bacon, Inc..

Southham, M. A., Agras, W. S., Taylor, C. B., & Kraemer, H.C. (1982). Relaxation training: Blood pressure lowering during the working day. *Archives of General Psychiatry*, 39, 715-717.

Thom, T. T., & Epstein, F. H. (1994). Heart disease, cancer, and stroke mortality trends and their relationships: An international perspective. *Circulation*, 90, 574-582.

Vockell, E. L., & Asher, J. (1995) *Educational research*. Englewood Cliffs, NJ: Prentice Hall.

Weidner, G., Boughal, T., Connor, S., Pieper, C., & Mendell, N. R. (1997). Relationship of job strain to standard coronary risk factors and psychological characteristics in women and men of the family heart study. *Health Psychology*, 16, 239-247.

Wollam, G. L., & Hall, W. D. (Eds.) (1988). *Hypertention management: Clinical practice and therapeutic dilemmas*. Chicago: Yearbook Publishers.